



August 23, 2010

Duke Energy  
Miami Fort Generating Station  
11021 Brower Road  
North Bend, OH 45052

Attention: Ms. Sue Wallace  
Chemical Engineer

Re: Results – **August 2010**  
Low-Level Mercury Sampling  
Miami Fort Generating Station  
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

1. River Intake
2. Station 601 (WWT Influent)  
[Samples were collected at this station one detention time before samples collected at Outfall 608]
3. Outfall 608 (WWT Effluent)  
[Samples were collected at this outfall one detention time after samples collected at station 601]
4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: *Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels* (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, total metal mercury samples were collected from Station 601 and analyzed by Method 7470A.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample (duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.

The results from the **August 2 and 3, 2010** sampling event are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.



Duke Energy - MFS  
August 23, 2010  
Page 2

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

URS Corporation

A handwritten signature in blue ink, appearing to read "Michael A. Wagner", is positioned above the printed name.

Michael A. Wagner  
Project Manager

A handwritten signature in blue ink, appearing to read "Dennis P. Connair", is positioned above the printed name.

Dennis P. Connair, C.P.G.  
Principal

**TABLE 1**  
**ANALYTICAL RESULTS**  
**LOW-LEVEL MERCURY**  
**RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)**  
  
**DUKE ENERGY - MIAMI FORT STATION**  
**NORTH BEND, OHIO**

Sample ID	Date Sampled / Results (ng/L, parts per trillion)						
	8/2/10	9/xx/2010	10/xx/2010	11/xx/2010	12/xx/2010	1/xx/2011	2/xx/2011
River Intake	1.9						
Station 601 (7)	48,200						
Station 601 (7)*	14,000						
Station 601 (7)* [duplicate]	13,000						
Station 601 (8)	NSC						
Station 601 (8)*	NSC						
Station 601 (8)*[duplicate]	NSC						
Outfall 608	420						
Outfall 608 [duplicate]	364						
APB-002	1.8						
APB-002 [duplicate]	1.3						
Field Blank (RI-FB)	<0.50						
Field Blank (WWT-FB)	<0.50						
Field Blank (AP-FB)	<0.50						
Trip Blank	<0.50						

Samples collected by URS

Samples analyzed by TestAmerica of North Canton, Ohio

NSC - No Sample Collected (Unit's wastewater was not being processed at the time of sample collection)

\* = Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]

B = Low-level mercury detected in associated field blank collected at sampling location

## ANALYTICAL REPORT

PROJECT NO. 14948701

MIAMI FORT LL HG 2010

Lot #: A0H050424

Sue Wallace

Duke Energy Corporation  
PO Box 5385  
Cincinnati, OH 45201

TESTAMERICA LABORATORIES, INC.



Kenneth J. Kuzior  
Project Manager  
ken.kuzior@testamericainc.com

Approved for release.  
Kenneth J. Kuzior  
Project Manager  
8/13/2010 3:40 PM

August 13, 2010

TestAmerica Laboratories, Inc.

TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720

Tel (330)497-9396 Fax (330)497-0772 [www.testamericainc.com](http://www.testamericainc.com)



# **CASE NARRATIVE**

A0H050424

The following report contains the analytical results for ten water samples and one quality control sample submitted to TestAmerica North Canton by Cinergy from the Miami Fort LL HG 2010 Site, project number 14948701. The samples were received August 05, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Candance Bonham, Mike Wagner, and Sue Wallace on August 11, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Kenneth J. Kuzior, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

## **SUPPLEMENTAL QC INFORMATION**

### **SAMPLE RECEIVING**

The temperature of the cooler upon sample receipt was 22.8°C.

See TestAmerica's Cooler Receipt Form for additional information.

## **CASE NARRATIVE (continued)**

### **METALS**

The matrix spike/matrix spike duplicate(s) for batch(es) 0218163 had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

## QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

### QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

### LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the reparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

### METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

<u>Volatile (GC or GC/MS)</u>	<u>Semivolatile (GC/MS)</u>	<u>Metals ICP-MS</u>	<u>Metals ICP Trace</u>
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

## QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the reparation and reanalysis of all samples in the QC batch.

### **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

### **SURROGATE COMPOUNDS**

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.



### **TestAmerica Certifications and Approvals:**

*The laboratory is certified for the analytes listed on the documents below. These are available upon request.*  
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),  
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada  
(#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190), NAVY,  
ARMY, USDA Soil Permit

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## EXECUTIVE SUMMARY - Detection Highlights

A0H050424

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
RI 08/02/10 17:15 002				
Mercury	1.9	0.50	ng/L	CFR136A 1631E
601(7)WWT 08/02/10 17:30 003				
Mercury	48200	20000	ng/L	CFR136A 1631E
601(7)WWT TOT 08/02/10 17:35 004				
Mercury	14.0	0.40	ug/L	SW846 7470A
601(7)WWT TOT DUP 08/02/10 17:40 005				
Mercury	13.0	0.40	ug/L	SW846 7470A
608WWT 08/03/10 07:30 006				
Mercury	420	20.0	ng/L	CFR136A 1631E
608WWT DUP 08/03/10 07:35 007				
Mercury	364	20.0	ng/L	CFR136A 1631E
OUTFALL 002 08/03/10 08:25 009				
Mercury	1.8	0.50	ng/L	CFR136A 1631E
OUTFALL 002 DUP 08/03/10 08:30 010				
Mercury	1.3	0.50	ng/L	CFR136A 1631E

# ANALYTICAL METHODS SUMMARY

A0H050424

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Mercury, Low Level Mercury, CVA Fluorescence	CFR136A 1631E

## References:

- CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

A0H050424

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L45D1	001	RIFB	08/02/10	17:10
L45D4	002	RI	08/02/10	17:15
L45D6	003	601 (7) WWT	08/02/10	17:30
L45D9	004	601 (7) WWT TOT	08/02/10	17:35
L45ED	005	601 (7) WWT TOT DUP	08/02/10	17:40
L45EH	006	608WWT	08/03/10	07:30
L45EK	007	608WWT DUP	08/03/10	07:35
L45EN	008	OUTFALL 002 FB	08/03/10	08:15
L45EQ	009	OUTFALL 002	08/03/10	08:25
L45ET	010	OUTFALL 002 DUP	08/03/10	08:30
L45EV	011	TRIP BLANK	08/03/10	

## NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Duke Energy Corporation

Client Sample ID: RIFB

TOTAL Metals

Lot-Sample #...: A0H050424-001

Matrix.....: WQ

Date Sampled...: 08/02/10 17:10 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	ND	0.50	ng/L	CFR136A 1631E	08/06-08/10/10	L45D11AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: RI

TOTAL Metals

Lot-Sample #...: A0H050424-002

Matrix.....: WG

Date Sampled...: 08/02/10 17:15 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	1.9	0.50	ng/L	CFR136A 1631E	08/06-08/10/10	L45D41AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: 601(7)WWT

TOTAL Metals

Lot-Sample #...: A0H050424-003

Matrix.....: WG

Date Sampled...: 08/02/10 17:30 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	48200	20000	ng/L	CFR136A 1631E	08/06-08/10/10	L45D61AA
		Dilution Factor: 40000				

Duke Energy Corporation

Client Sample ID: 601(7)WWT TOT

TOTAL Metals

Lot-Sample #...: A0H050424-004

Matrix.....: WG

Date Sampled...: 08/02/10 17:35 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218014						
Mercury	14.0	0.40	ug/L	SW846 7470A	08/06-08/10/10	L45D91AA
		Dilution Factor: 2				

Duke Energy Corporation

Client Sample ID: 601(7)WWT TOT DUP

TOTAL Metals

Lot-Sample #...: A0H050424-005

Matrix.....: WG

Date Sampled...: 08/02/10 17:40 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218014						
Mercury	13.0	0.40	ug/L	SW846 7470A	08/06-08/10/10	L45ED1AA
		Dilution Factor: 2				



Duke Energy Corporation

Client Sample ID: 608WWT

TOTAL Metals

Lot-Sample #...: A0H050424-006

Matrix.....: WG

Date Sampled...: 08/03/10 07:30 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	420	20.0	ng/L	CFR136A 1631E	08/06-08/10/10	L45EH1AA
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: 608WWT DUP

TOTAL Metals

Lot-Sample #...: A0H050424-007

Matrix.....: WG

Date Sampled...: 08/03/10 07:35 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	364	20.0	ng/L	CFR136A 1631E	08/06-08/10/10	L45EK1AA
		Dilution Factor: 40				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 FB

TOTAL Metals

Lot-Sample #...: A0H050424-008

Matrix.....: WQ

Date Sampled...: 08/03/10 08:15 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	ND	0.50	ng/L	CFR136A 1631E	08/06-08/10/10	L45EN1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002

TOTAL Metals

Lot-Sample #...: A0H050424-009

Matrix.....: WG

Date Sampled...: 08/03/10 08:25 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	1.8	0.50	ng/L	CFR136A 1631E	08/06-08/10/10	L45EQ1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: OUTFALL 002 DUP

TOTAL Metals

Lot-Sample #...: A0H050424-010

Matrix.....: WG

Date Sampled...: 08/03/10 08:30 Date Received...: 08/05/10

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0218163						
Mercury	1.3	0.50	ng/L	CFR136A 1631E	08/06-08/10/10	L45ET1AA
		Dilution Factor: 1				

Duke Energy Corporation

Client Sample ID: TRIP BLANK

TOTAL Metals

Lot-Sample #...: A0H050424-011

Matrix.....: WQ

Date Sampled...: 08/03/10

Date Received...: 08/05/10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...	0218163					
Mercury	ND	0.50	ng/L	CFR136A 1631E	08/06-08/10/10	L45EV1AA
		Dilution Factor: 1				

# ***QUALITY CONTROL SECTION***

# METHOD BLANK REPORT

## TOTAL Metals

Client Lot #...: A0H050424

Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #:	A0H060000-014	Prep Batch #...	0218014			
Mercury	ND	0.20	ug/L	SW846 7470A	08/06-08/09/10	L466G1A8
		Dilution Factor: 1				

MB Lot-Sample #:	A0H060000-163	Prep Batch #...	0218163			
Mercury	ND	0.50	ng/L	CFR136A 1631E	08/06-08/09/10	L48Q01AA
		Dilution Factor: 1				

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.



# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: A0H050424

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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LCS Lot-Sample#:	A0H060000-014	Prep Batch #...:	0218014		
Mercury	109	(81 - 123)	SW846 7470A	08/06-08/09/10	L466G1CF
		Dilution Factor:	1		

LCS Lot-Sample#:	A0H060000-163	Prep Batch #...:	0218163		
Mercury	106	(77 - 125)	CFR136A 1631E	08/06-08/09/10	L48Q01AC
		Dilution Factor:	1		

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: A0H050424

Matrix.....: WATER

Date Sampled...: 08/04/10 09:45 Date Received...: 08/05/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>MS Lot-Sample #:</b> A0H050502-001 <b>Prep Batch #...</b> : 0218014						
Mercury	116	(69 - 134)		SW846 7470A	08/06-08/09/10	L45331C3
	118	(69 - 134) 1.0	(0-20)	SW846 7470A	08/06-08/09/10	L45331C4
Dilution Factor: 1						

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: A0H050424

Matrix.....: WG

Date Sampled...: 08/03/10 08:25 Date Received...: 08/05/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>MS Lot-Sample #:</b> A0H050424-009 <b>Prep Batch #...</b> : 0218163						
Mercury	96	(71 - 125)		CFR136A 1631E	08/06-08/10/10	L45EQ1AC
	96	(71 - 125) 0.52 (0-24)		CFR136A 1631E	08/06-08/10/10	L45EQ1AD
Dilution Factor: 5						

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: A0H050424

Matrix.....: WATER

Date Sampled...: 08/04/10 10:50 Date Received...: 08/05/10

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: A0H050429-008 Prep Batch #...: 0218163						
Mercury	158 N	(71 - 125)		CFR136A 1631E	08/06-08/10/10	L45F31AC
	157 N	(71 - 125) 0.28 (0-24)		CFR136A 1631E	08/06-08/10/10	L45F31AD
Dilution Factor: 5						

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

TestAmerica Laboratory location:

Next Carbon, OH

THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program:

☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact		Client Project Manager:		Site Contact:		Lab Contact:		COC No:											
Name: JKE ENERGY		Mike Wagner (JES GAG)		John Arsen				1 of 1 COCs											
Address: 14M1 FLET STATION		Telephone: (513) 651-3440		Telephone: (513) 651-3440		Telephone:													
Zip: 574 BEND, OH		Email: Mike.wagner@jke.com		Analysis: Environmental Time (in 30 days)		Analyses		For all test results											
(513) 651-3440		Mike.wagner@jke.com		TAT different from below		3 weeks		Wait for client											
Name: JKE ENERGY		Method of Shipment/Carrier: LORRY		<input type="checkbox"/> 3 weeks		2 weeks		Lab packing											
Number: 14948701		Shipping/Tracking No:		<input type="checkbox"/> 1 week		1 day		Lab sampling											
				<input type="checkbox"/> 2 days				Lab storage											
				<input type="checkbox"/> 1 day				Lab storage No.											
Sample Identification		Sample Date	Sample Time	Matrix		Containers & Preservatives		Filtered Sample (Y/N)											
				Air	Aqueous	Sediment	Solid	Other:	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Composite - C / Grab - G	Sample Specific Notes / Special Instructions:		
IFB		8-2-2010	1710	X															
I			1715	X															
01(7) WWT			1730	X															
01(7) WWT TDT			1735	X															
01(7) WWT TDT DUP			1740	X															
08 WWT		8-3-10	0730	X															
08 WWT DUP			0735	X															
08 WWT 002 FB			0815	X															
08 WWT 002			0825	X															
08 WWT 002 DUP			0830	X															
WTTALL 002 TDT BLANK				X															
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B		<input checked="" type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		Months									
Company: COSA		Date/Time: 8-4-10 / 1610		Received by: [Signature]		Received in Laboratory by: [Signature]		Company: TestAmerica		Date/Time: 8-4-10 / 1610		Company: TestAmerica		Date/Time: 8-4-10 / 1610		Company: TestAmerica		Date/Time: 8-4-10 / 1610	
Company: TestAmerica		Date/Time: 8-4-10 / 1615		Received by: [Signature]		Received in Laboratory by: [Signature]		Company: TestAmerica		Date/Time: 8-4-10 / 1615		Company: TestAmerica		Date/Time: 8-4-10 / 1615		Company: TestAmerica		Date/Time: 8-4-10 / 1615	

potentially elevated Hg levels

Client Duke Energy Project Miami, FL By: Al  
Cooler Received on 8/5/10 Opened on 8/5/10 (Signature) [Signature]  
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ☐  
TestAmerica Cooler # L171 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other ☐  
1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐  
If YES, Quantity 1 Quantity Unsalvageable \_\_\_\_\_  
Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐  
Were custody seals on the bottle(s)? Yes ☐ No ☒  
If YES, are there any exceptions? \_\_\_\_\_  
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐  
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐  
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐  
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other \_\_\_\_\_  
6. Cooler temperature upon receipt 22.8 °C See back of form for multiple coolers/temps ☐  
METHOD: IR ☒ Other ☐ \_\_\_\_\_  
COOLANT: Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☒  
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐  
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐  
9. Were sample(s) at the correct pH upon receipt? Yes ☒ No ☐ NA ☐  
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐  
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒  
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐  
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☐ No ☒  
Contacted PM RJK Date 8/5/10 by an via Verbal ☐ Voice Mail ☒ Other ☐  
Concerning 14

The following discrepancies occurred:

## 15. SAMPLE CONDITION

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

Sample(s) 10T + TOT Dup were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 051010-HNO<sub>3</sub>; Sulfuric Acid Lot# 051010-H<sub>2</sub>SO<sub>4</sub>; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH<sub>3</sub>COO)<sub>2</sub>ZN/NaOH. What time was preservative added to sample(s)?

[illegible]



***END OF REPORT***